TAULA DE DERIVADES

FUNCIÓ SIMPLE		FUNCIÓ COMPOSTA	
$f(x) = k$	$f'(x) = 0$		
$f(x) = x$	$f'(x) = 1$		
$f(x) = x^n$	$f^{)(x)} = n \cdot x^{n\text{-}1}$	$f(x) = g(x)^n$	$f'(x) = n \cdot g(x)^{n\text{-}1} \cdot g'(x)$
$f(x) = \sqrt{x}$	$f'(x) = \frac{1}{2\sqrt{x}}$	$f(x) = \sqrt{g(x)}$	$f^{)(x)} = \frac{1}{2\sqrt{g(x)}} \cdot g'(x)$
$f(x) = \sqrt[n]{x}$	$f'(x) = \frac{1}{n\sqrt[n]{x^{n-1}}}$	$f(x) = \sqrt[n]{g(x)}$	$f^{)(x)} = \frac{1}{n\sqrt[n]{g(x)^{n-1}}} \cdot g'(x)$
$f(x) = e^x$	$f'(x) = e^x$	$f(x) = e^{7(x)}$	$f^{)(x)} = e^{g(x)} \cdot g'(x)$
$f(x) = a^x$	$f^{)(x)} = a^x \cdot \ln a$	$f(x) = a^{7(x)}$	$f^{)(x)} = a^{7(x)} \cdot \ln a \cdot g'(x)$
$f(x) = \ln x$	$f'(x) = \frac{1}{x}$	$f(x) = \ln g(x)$	$f^{)(x)} = \frac{1}{g(x)} \cdot g^{)}(x)$
$f(x) = \log_a x$	$f^{)}(x) = \frac{1}{x} \cdot lna$	$f(x) = \log_a g(x)$	$f^{)(x)} = \frac{1}{\ln g(x)} \cdot g'(x) \cdot \frac{1}{\ln a}$
$f(x) = \sin x$	$f'(x) = \cos x$	$f(x) = \sin g(x)$	$f^{)(x)} = \cos g(x) \cdot g'(x)$
$f(x) = \cos x$	$f^{)}(x) = -\sin x$	$f(x) = \cos g(x)$	$f^{)}(x) = -\sin g(x) \cdot g'(x)$
$f(x) = \tan x$	$f^{)}(x) = \frac{1}{cos^2\ x}$ $f'(x) = 1 + \tan^2 x$	$f(x) = \tan g(x)$	$f^{)}(x) = \frac{1}{cos^2\ g(x)} \cdot g'(x)$ $f'(x) = (1 + \tan^2 g(x)) \cdot g'(x)$
$f(x) = arcsinx$	$f'(x) = \frac{1}{\sqrt{1 - x^2}}$	$f(x) = arcsing(x)$	$f^{)(x)} = \frac{1}{\sqrt{1 - g(x)^2}} \cdot g'(x)$
$f(x) = arccosx$	$f'(x) = \frac{-1}{\sqrt{1 - x^2}}$	$f(x) = arccosg(x)$	$f^{)(x)} = \frac{-1}{\sqrt{1 - g(x)^2}} \cdot g'(x)$
$f(x) = arctanx$	$f'(x) = \frac{1}{1 + x^2}$	$f(x) = arctang(x)$	$f^{)(x)} = \frac{1}{1 + g(x)^2} \cdot g'(x)$

OPERACIONS AMB DERIVADES

SUMA	$f(x) + g(x) = f'(x) + g'(x)$
RESTA	$f(x) - g(x) = f'(x) - g'(x)$
PRODUCTE	$f(x) \cdot g(x) = f'(x) \cdot g(x) + f(x) \cdot g'(x)$
QUOCIENT	$\frac{f(x)}{g(x)} = \frac{f^{)}(x) \cdot g(x) - f(x) \cdot g'(x)}{g(x)^2}$
PRODUCTE D'UN NOMBRE	$k \cdot f(x) = kf'(x)$
REGLA DE LA CADENA	$g\lfloor f(x) \rfloor = g'\lfloor f(x) \rfloor \cdot f'(x)$